REMARKS

This responds to the Office Action mailed on September 26, 2005, and the references cited therewith.

Claims 1 and 8 are amended, and no claims are canceled or added; as a result, claims 1-11 remain pending in this application. No new matter has been added.

§103 Rejection of the Claims

Claims 1-3 and 5-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Schimmel (US 6,105,113; hereinafter "Schimmel") and in view of Fossum et al. (US 4,888,679; hereinafter "Fossum"). Applicant respectfully traverses this rejection because the combination of Schimmel in view of Fossum fails to teach or suggest the entirety of the claims as currently amended.

The Office Action admits on page 3 that "Schimmel does not teach that each processor includes a scalar processing unit, a vector processing unit and means for operating the scalar processing unit independently of the vector processing unit." The Office Action cites the Microsoft Computer Dictionary, 5th edition and Fossum as providing these teachings.

Regarding the Microsoft Computer Dictionary, a PC may have a scalar processor for data processing and a vector processor for graphic applications, but this is not a scalar processing unit and a vector processing unit within each of the plurality of processors as claimed.

Regarding Fossum, Applicant respectfully submits that there is no teaching of a "means for operating the scalar processing unit independently of the vector processing unit. For example, Fossum provides:

> "Upon receipt of the vector load command, the vector processor sends requests to the cache for the individual vector elements. The requests for the individual vector elements are processed independently of the vector prefetch requests. *Since the scalar processor is idle during a vector load cycle after issuing its prefetch commands, its address generator and data path can be shared by the vector processor.*" Col. 3, lines 28-35. (*Emphasis* added).

Although requests for the individual vector elements are processed independently by the vector processor, the scalar processor is idle during the vector prefetch requests. This is contrary to claim 1, which has been amended to clarify that the scalar processor is not idle in such an

instance, but instead continues to execute additional instructions. Applicant submits that the amendment to claim 1 is supported throughout the application, such as at page 3, lines 11-27. Thus, Applicant respectfully submits that this amendment clarifies the patentability of claim 1.

Thus, Applicant respectfully submits that independent claim 1 is patentable over Fossum and Schimmel. Applicant further submits that amended independent claim 8 is also patentable because it includes similar elements as claim 1.

Claims 2-3, 5-7, and 9-11 depend, directly or indirectly, from patentable independent claims 1 and 8, and are patentable for at least the same reason, plus the elements of the claims.

For example, the Office Action on page 4 while addressing claim 2 asserts that Schimmel teaches a Remote Translation Table in the shared memory that "translates memory addresses received from a first processing node into physical addresses within the shared memory of a second processing node." However, Schimmel includes a standard translation look-aside buffer which performs translation from virtual to physical pages at the source processor. The subject matter of claim 2 on the other hand, performs the translation on the second processing node, and not the first, or source processor.

Further, regarding claim 6, the Office Action asserts that Fossum teaches a scalar cache memory that contains a subset of cache lines stored in the shared cache memory. However, Applicant is unable to find such a teaching. Instead, Applicant can only find only a shared cache. Thus, Applicant respectfully submits that Fossum does not teach a scalar cache memory.

Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Schimmel in view of Fossum, and further in view of Nakazato (US 6,782,468; hereinafter "Nakazato"). However, Nakazato fails to cure the deficiencies of the combination of Schimmel and Fossum as discussed above. Thus, Applicant respectfully submits that claim 4, being dependent upon patentable independent claim 1, is also patentable.

Therefore, Applicant respectfully requests withdrawal of the 35 U.S.C. § 103(a) rejections and allowance of claims 1-11.

Documents Cited but not Relied Upon for this Office Action

Applicant need not respond to the assertion of pertinence stated for the references cited but not relied upon by the Office Action since these references are not made part of the rejections in this Office Action. Applicant is expressly not admitting to this assertion and reserves the right to address the assertion should it form part of future rejections.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6909 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.
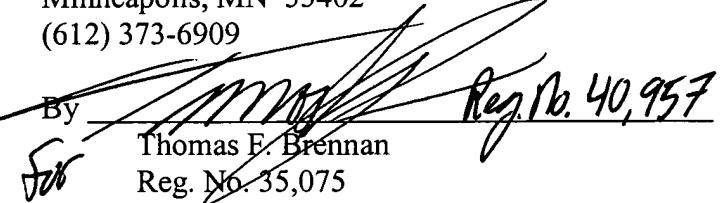
Respectfully submitted,

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Date 27 March '06

By _____   Reg. No. 40,957
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 27 day of March, 2006.

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